

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: w0ogh@ix.netcom.com (Larry Godek)
Subject: 3885
Message-ID: <199602090109.RAA03964@ix8.ix.netcom.com>

As I set here writing this note and reading my mail, I am listening to KD4CPL and WA4KCY chatting on 3885 AM. Its only 0100Z here in AZ. but there are lots of east coast stations on Scientific SetBack mode coming thru as well. Wonder where the Jetstream is this evening. Nice copy Nick and Andy. Unfortunately I can't get back to you as I am using a 40 meter ant. for reception. Don't work so well on 80 mtrs.

Larry W00GH@ix.netcom.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: lkayser@WorldLink.ca (Larry Kayser)
Subject: ??? R174 - URR Receiver
Message-ID: <9602081304.AA15609@beacon.WorldLink.ca>

Greetings Gang, during a trip to Toronto I saw in one shop a number of R174-URR HF radio receivers which are "pulls" from a larger radio set of some sort. The asking price for these units was \$90 Cdn\$ which would be about \$65 US\$.

I would be interested in finding out where these units came from, what does the rest of the radio look like?

Larry
va3lk / wa3zia

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: anders@autopsy.corp.sgi.com (Greg Anders)
Subject: Am filter needed for Drake
Message-ID: <199602082125.NAA15054@autopsy.corp.sgi.com>

After frustrating experiences copying AM on my R4C I'm looking for pointers to any source for the AM filter for this rig. I know Drake sells parts but does anyone know if they still have filters? If not, any ideas would be appreciated.

THanks,

Greg Anders

"One doesn't discover new lands without consenting to lose sight of the shore for a very long time."

Andre Gide
French Novelist

Manager, North American Professional Services
anders@autopsy.corp.sgi.com
KG6YV

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: g.elliott1@genie.com
Subject: AM on 3885 with SX-88 receiver
Message-ID: <199602090529.AA160153753@relay1.geis.com>

Andy

Question, what is the correct E-mail address to make a post to the BOATANCHORS@THEPORCH.COM ? I can only respond to other peoples posts and every time I try to generate a message it gets rejected i thought the correct address was listproc@theporch.com but this gets rejected. Realize this has nothing to do with your SX88 and AM but trying to get correct address so that i can generate some original postings. Thanks

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: Andy Howard WA4KCY <102452.362@compuserve.com>
Subject: AM on 3885 with SX-88 receivers
Message-ID: <960209041226_102452.362_DHT91-1@CompuServe.COM>

Hi Gang,

With what may have been a first in many years Nick (KD4CPL) and myself (WA4KCY) made contact on 3885 AM with both of us using SX-88 receivers. Now that is the way AM is supposed to sound. Thank you to Andy Wallace for the report via BA list. Thanks also to Larry for the report via the BA list of the conversation

from Arizona. Join us and exercise some of that great AM gear. Put it on the air and let it do what it was designed to to - create beautiful full fidelity sound for all listeners to enjoy.

Thanks Nick. Great contact. Your Valiant sounds great with the SX-88 crystal filter opened up and the bass boost switched in.

73 and good operating to all AM'ers.

Andy, WA4KCY
AMI #9

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: "Ray L. Mote" <rmote@rain.org>
Subject: AN/APX-6 destruct charges
Message-ID: <Pine.SUN.3.91.960208061411.14682C-100000@coyote.rain.org>

If you check your old QST's for the postwar period, you'll find that a few IFF units did indeed escape with destruction charges intact! If I were you, I'd be really careful until I'd checked the slot for that second charge. A museum on the east coast ran into one such unit within the last two years -- Fred Raper coached 'em thru the removal process. Their unit had the end cap broken off, but the "stuff" was still inside the tube.

Every unit I've seen has had the charges removed. Maybe that's why they don't call me "Three-finger Mote" yet. 'nuff said.

73.....Ray Mote, W6RIC <rmote@rain.org>

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: dt@scotborders.co.uk (David Topham - Arts & Science)
Subject: Re: Andromeda strain
Message-ID: <9602081540.AA13806@scotborders.co.uk>

Richard, KB5WLH, wrote:

>BTW, I ran across a technical article (that I can't find now) that talked about >the discovery of a micro-organism that consumes the plastic encapsulant present >in most commercial IC's... ...Keep your solid steel boatanchors, they may >really be worth something someday after the plague :)

I have a real problem here with *rubber* connectors on mil gear. Some stay just fine it seems forever, whilst others are OK one day then go into rapid

disintegration. Someone once told me this has been tracked to a virus.
Anyone know a cure or prevention - before it attacks *me*?

73, David GM3WKB dt@artscience.scotborders.co.uk

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: jproc@worldlinx.com
Subject: Re: Andromeda strain
Message-ID: <Chameleon.4.01.2.960208132157.jproc@>

>I have a real problem here with *rubber* connectors on mil gear.

David,

There are several factors which determine the longeevity of rubber components:

- 1) The composition of the material
- 2) Length of exposure to light/air
- 3) Ambient temperature

A combination of the these factors will affect the deterioration rate of rubber.

Regards,

Jerry Proc, VE3FAB
Radio Restoration Volunteer
HMCS Haida
E-mail: jproc@worldlinx.com
Toronto, Ontario

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: KWDouglas@aol.com
Subject: Re: Andromeda strain
Message-ID: <960208191533_139440463@mail06.mail.aol.com>

>I have a real problem here with "rubber" connectors on mil gear. Some stay
>just fine it seems forever, whilst others are OK one day then go into rapid

>disintegration. Someone once told me this has been tracked to a virus.

Hopefully, we have an expert on board. But meanwhile....

Nothing has been heard about a "rubber eating" virus here. (Gads, is this a "straight-line")! I've always heard that the elasticity feature of NATURAL rubber

can't withstand man-made or naturally occurring ozone gas for very long. Some kind of chemical reaction twixt the ozone and something in the rubber, I guess.

(Are you drawing lots of big, ozone generating arcs plugging & unplugging those mil gear connectors, David)?

Many synthetic "rubbers" don't seem to have this problem, or at least to the extent natural rubber does. Maybe you have a mixture of rubber and man-made "rubber" mil connector boots.(?)

Kent, K9JCR
KWDouglas@aol.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: Greg Raven <gsraven@cris.com>
Subject: Re: AWA OT CW Contest
Message-ID: <199602081432.JAA06060@franklin-fddi.cris.com>

Neal, please verify the dates ! I quoted this from the February 1996 Old Timer's Bulletin. I double checked; the dates are listed twice. On page 6 and on page 16. What is your source ?
We may need to call Bruce Kelley to straighten this out.

73 de KF5N

>At 08:17 PM 2/7/96 -0800, you wrote:
>>My AWA mailing has the contest Feb 14 6PM EST to Feb 15 6PM EST and
>>repeating the same way on Feb 17 and 18. It is not a two weekend affair
>>but rather mid week and one weekend.

Excerpt from note sent by Greg KF5N:
>>>The contest occurs on two weekends:
>>>
>>>6 pm Feb. 10 to 6 pm Feb. 11 and
>>>6 pm Feb. 17 to 6 pm Feb. 18

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996

From: "Gable, Edward M" <emg@rfpo2.rfc.comm.harris.com>
Subject: Re: AWA OT CW Contest, The Answer is --
Message-ID: <311A3D61@smtpgate.rfc.comm.harris.com>

The latest AWA OTB had bad dates. We don't know why.
The previous OTB was correct. The AWA OT contest is in
the same format as in previous years, a Wednesday and
the following one weekend. This year that's Feb 14 and
Feb 17/18.

Sorry for the confusion.

Ed Gable W2AN/K2MP
AWA Board of Directors
emg@rfc.comm.harris.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: pbock@melpar.esys.com (Paul H. Bock)
Subject: RE: B-29 radios?
Message-ID: <9602081330.AA26925@syseng1.se.melpar.esys.com>

>Are there any
>remaining B-29's (flying or otherwise) in existence?

The Confederate Air Force was flying at least one in the
mid-1980s; it landed at Manassas, VA the day before a scheduled
air show and I got to walk around it while it cooled off. It was
bigger than I thought (and dripped a lot of oil) but I didn't get
to see the inside.

73,

Paul, K4MSG

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: "Bill Standerfer" <williame@lynx.csn.net>
Subject: Re: B-29 radios?
Message-ID: <199602090143.AA27327@ns-1.csn.net>

> would have been the normal complement of equipment on a plane such as this?
> Finally, I know there are only about nine B-17's left. Are there any
> remaining B-29's (flying or otherwise) in existence?
>

To answer the last question first, there is only one B-29 currently airworthy. The Confederate Air Force has "Fifi" that makes the airshow circuit. Kermit Weeks bought "Fertile Myrtle" a few years ago and moved it (on the ground) to Florida, but there was considerable wing spare corrosion that will make restoration to airworthy condition difficult.

As for the radio gear, the B-29 had a normal complement of equipment including: BC-348 receiver, BC-375 transmitter, TU-8/TU-9/TU-27 tuning units, BC-221 frequency meter, and, of course, command set transmitters and receivers. There are various other miscellaneous pieces, too (IFF, etc.).

Most of the airplanes used during WWII have been documented for model builders in small books you can find at a good hobby shop. They usually have acceptable shots of the interior, but don't completely identify the radio gear. There are also a few reproductions of pilot manuals for the B-29, B-24, and others available from places like Zenith books. These books will usually have the equipment identified *and* have brief operating procedures.

Enjoy!

Bill Standerfer - KF0DJ - Baron N222AB
Fort Collins, Colorado

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: aa4rm%amos.UUCP@mathcs.emory.edu (Marty)
Subject: Re: BA Quiz on SuperPro Models
Message-ID: <9602080525.AA17366@amos.YP.mystnite>

The Capeheart 400s from the late 30s (& Idianna) reportedly had a repackaged SP 200 as the AM tuner. I have one & sure enuf, all the IFs say Hammurlund, the coil forms are look-alike ceramic, and the tube line-up's the same.

WHATTA 'BOUT THAT?

These Capeheart 400s competed wiith giant console Crosleys, RCAs, Zeniths, & of course the chrome double-doo-dad hokum huckster Scotts fm Chi-town. Unlike the latter, they had TURN-OVER 78 changers... and weight, gawd were (are) they heavy.

Separate bass & mid/hi amps & spkr.s with small sig. xovers. Truly THE best available & built just down the strasse fm the Auburn / Doosie factories.

'rm

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: cooper@gmpvt.com (Tom Cooper)
Subject: BC-474A and BC-1306
Message-ID: <199602081548.KAA21172@web.gmpvt.com>

A friend of mine has a very clean BC-474A that he might let go to a new home. If you are interested, e-mail me directly.

I have a BC-1306 in OK condition that sits in the cellar looking lonely. Anyone need one of these?

73

Tom WA1GUV
cooper@gmpvt.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: "Nickels, Bob" <RNickels@P16.IL50.micro.honeywell.com>
Subject: cap replacement?
Message-ID: <311A3F05@mail_gw.micro.honeywell.com>

Hank said: " I don't think I've seen more than two bad mica caps in the 43 years I've been fooling with electronics so I don't consider blanket replacing them."

I agree, but recently learned that the molded paper jobs that look like micas - aren't! The ones I found in an SP-210 were about 2 by 4 cm. and leaked at anything over 50 volts! After I bashed one open with a hammer - I found out why. My new rule: if it's paper - replace it!

73, Bob - KE0T

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>
Subject: Re: cap replacement?
Message-ID: <199602081840.MAA09826@dlep1.itg.ti.com>

At 12:21 PM 2/8/96 -0600, you wrote:

>... recently learned that the molded paper jobs that look like
>micas - aren't! The ones I found in an SP-210 were about 2 by 4 cm. and

>leaked at anything over 50 volts! After I bashed one open with a hammer - I
>found out why. My new rule: if it's paper - replace it!

What a cruel hoax. So that explains why another SuperPro had a wax paper
cap in the same position as the faux mica which went bad. Gawd, I may have
lots of work to do in my SuperPro's.

I guess the question now becomes: How can one tell whether it's real mica
or an imposter?

Regards,
Bill Sorsby, N5BU

bill.sorsby@dlep1.itg.ti.com
Views expressed herein are no one's fault but mine.

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: John Shriver <jas@shiva.com>
Subject: Re: cap replacement?
Message-ID: <199602081943.0AA10364@shiva-dev.shiva.com>

In "postage stamp" caps (the six dots one), I think the red ones are
mica, the green and brown ones are paper.

One could probably also figure that anything over about 2000 pF would
be paper, since it would be too big in mica.

One of the six color dots may sometimes offer a hint.

Also, if the tolerance dot is silver or none, it's probably paper...

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: wb6zwc@ns.net
Subject: capacitors
Message-ID: <2.2.16.19960208161338.23dfd55a@ns.net>

I hate capacitors they are so sneaky!

Richard wb6zwc@ns.net
Still looking for Bleeder

Resistors 7.5 K @ 160 Watts

& 575A's

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996

From: Andy Wallace <wallace@mc.com>

Subject: caps in 390A, reliable or not?

Message-ID: <9602082049.AA13679@taku>

All this talk about caps makes me think -- the
S-38s get all the cap-ectomies, but I seldom hear
from R-390A owners who have recapped them.

Are the caps in the 390A family more reliable, or is
it just because they are harder to get at? <wink>

73,

--Andy

wallace@mc.com

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996

From: Dean Davidson <ddavidso@metz.une.edu.au>

Subject: Re: caps in 390A, reliable or not?

Message-ID: <199602082152.IAA29163@metz.une.edu.au>

At 02:52 PM 8/02/96 -0600, Andy wrote:

>All this talk about caps makes me think -- the
>S-38s get all the cap-ectomies, but I seldom hear
>from R-390A owners who have recapped them.

>

>Are the caps in the 390A family more reliable, or is
>it just because they are harder to get at? <wink>

Not that reliable. Just last night on my 391, I replaced a 100pF
that showed obvious signs of distress. This was a bypass on the
grids of the regulator tubes. I'm not sure whether it had
shorted and then taken the 82K resistor in the divider
chain or vice versa. The cap was a brown postage stamp
- six dots, so from what I read here this morning, probably
a paper. It now has a ceramic. Oh and yes - both the resistor and
cap were hard to get at and replace - or am I just getting
old! This 391 has its fortieth birthday this year - not too
much younger than me!

BTW while trouble shooting this I noticed that the 47 ohms from the cathodes were all a little high (~55 ohm) but one was 70 ohm or so. Should this be replaced, or does it not matter too much?

Cheers,
Dean

--

Dean Davidson
Dept Psychology
University of New England
Armidale NSW 2351 Australia

ddavidso@metz.une.edu.au
Phone 61 67 73 2585
Fax 61 67 73 3820
VK2 ZID

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: dgibbs@rational.com
Subject: Re: caps in 390A, reliable or not?
Message-ID: <Chameleon.960208181201.dgibbs2@>

Greetings all,

>BTW while trouble shooting this I noticed that the 47 ohms
>from the cathodes were all a little high (~55 ohm) but one
>was 70 ohm or so. Should this be replaced, or does it not
>matter too much?

>

>Cheers,

>Dean

>

>--

>Dean Davidson

For what it's worth, I've gotten into the habit of checking resistance on all resistors on the AF chassis of the R-389/R390/R391 series. The massive amount of heat from the twin 6082 regulator tubes really cook the old carbon resistors. I replace the 47 ohm resistors with 5-watt wirewound versions. I also do the same thing to the 47 ohm resistors under the 26Z5Ws on the power supply. If one resistor is out of tolerance by a significant amount, it will shorten the life of the tube.

In addition, almost EVERY AF deck from these models has shown that resistors R-626 (2.7K) and R-625 (1K) are significantly out of tolerance. The symptoms of these resistors being out of tolerance is a loss of voltage regulation control. This

causes the B+ to slowly drop. Eventually, you will notice this as an unusually high hum level in the audio.

Dennis Gibbs
dgibbs@rational.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: "Ray L. Mote" <rmote@rain.org>
Subject: Classification & distribution limitations
Message-ID: <Pine.SUN.3.91.960208062213.14682D-100000@coyote.rain.org>

Documents may be unavailable either because they have been classified, or because a determination has been made to limit distribution. Actual security classification comes in CONFIDENTIAL, SECRET, TOP SECRET, and special project flavors. The WW2 and somewhat later gear we see was usually classified a maximum of SECRET (IFF and radar, mostly), and has long since been declassified. Why anyone would want to classify a KWM-2A is beyond me (if unmodified), but dumber things have happened.

I addressed the distribution limitation in an earlier post, which I won't repeat here. The previous method had been to stamp FOUO (For Official Use Only) on a document, and it was then not releasable outside the government/defense contractors. This was done primarily to prevent export of militarily significant technical data, and to protect the proprietary interests of a contractor.

In either case, klzat is correct in stating that such information has to be reviewed by a person possessing the requisite technical knowledge and with the authority to change the document's status. These days, all old classified documents are supposed to be re-stamped with "OADR" -- Originating Agency Determination Required. That means that only the agency which originated a document can change its classification. In practice, you have to go back to the group within that agency, and talk to them. Lotsa luck, Charlie, when the group has changed names sixteen times and may even have changed from one agency to another since the document was created 40 or 50 years ago! Under the present system, all such documents are likely to remain with the current classification or distribution limitation until destroyed. Current budget trends make review for declassification or downgrading action very highly improbable, given the labor costs involved. I think I've beat the subject to death now, so I'll shut up.

73.....Ray Mote, W6RIC <rmote@rain.org>

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: hinec@ccgate.dl.nec.com (Cory Hine)
Subject: CLEGG VENUS
Message-ID: <9601088237.AA823790294@smtpgw.ccgate.dl.nec.com>

HI EVERYONE.....

I HAVE A CLEGG VENUS THAT I AM TIRED OF HAVING FUN WITH. RUNS ABOUT 40 OR 50 WATTS OUT, AM AND SSB. COVERS 50.0 TO 50.4 AND IS ALMOST MINT CONDITION. HAS HOMEBREW POWER SUPPLY WHICH WORKS REAL WELL. I NEED TO CHANGE THE ON-OFF SWITCH, WHICH I WILL DO IF SOMEONE IS INTERESTED. I THINK \$250 IS ABOUT RIGHT! LET ME KNOW IF ANY INTEREST.

Have been enjoying the BA "net" for about a week now. Lots of activity compared to some lists. My area of expertise is Collins, and am always looking for info, or to help out. Do some PM and repair work as it comes along. Mostly because I like working on Collins! There is Collins, and then there's everything else.... ask the Air Force about all the Harris radios that failed in Desert Storm! They replaced them with KWM-2A's and had no further trouble. New and improved solid state equipment failed from sand static.

All for now, have fun....

Cory

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: "Gable, Edward M" <emg@rfpo2.rfc.comm.harris.com>
Subject: RE: CLEGG VENUS
Message-ID: <311A07B0@smtpgate.rfc.comm.harris.com>

>From: boatanchors
>To: Multiple recipients of list
>Subject: CLEGG VENUS
>Date: Thursday, February 08, 1996 6:57AM
>HI EVERYONE.....
<snip>
>I THINK \$250 IS ABOUT RIGHT! LET ME KNOW IF ANY
> INTEREST.
<snip>

You might get more response if you supplied an e-mail address !!
73, Ed K2MP <emg@rfc.comm.harris.com>

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: "Frank Reid" <reid@indiana.edu>
Subject: RE: Destructors (was RE: APX-6 UHF Transponder)
Message-ID: <33200.reid@ucs.indiana.edu>

michael.j.knudsen@att.com mentions thermite destructors in an APX-6.
I remember a QST article (early 60s) showing a hole in the ground blown
by a destruction charge found in a piece of surplus gear. A friend who
was in B-17s said that some were set off in celebration when the war
ended; they made a bang, the equipment cases expanded, and smoke came out.
Anyone got experience with those things?

--

Frank reid@indiana.edu W9MKV

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: Richard Biddle <rbiddle@advax.mo.ti.com>
Subject: Factory mods and upgrades
Message-ID: <311A13A9.7D14@advax.mo.ti.com>

Having spent the last 16 years in the military semiconductor business, I found the
thread on
factory mods and custom models interesting and often humorous. I see people
commenting on the
changes made to entire systems and how frustrating it is to comprehend all this,
but you "ain't
seen nothing yet." SC manufacturers have a penchant for changing the inside of
those little
black goobers with the legs on 'em (and some without legs). Then the OEMs figure
out what
changes are needed in production to use the critters. The military specs at the
device level are
pretty broad, but some OEMs used to characterize the parts from one or two
suppliers and design
their system around tighter than data sheet limits. Now you wind up with a system
that will work
with one or two manufacturer's parts and not with anothers, or even worse, an
older
out-of-production system that will only work with the same vintage device as the
original since
the newer versions of the same part are faster, etc.. In some cases, we have run
up custom ASIC

designs for some systems where there are only a few hundred devices produced.
Sure would hate to
try to find a replacement for that booger in 20 or 30 years.

The JAN spec allows for a +/- 30% variation for tube performance according to the spec.

Integrated circuits are spec'ed with 10% or even 5% power supplies. One of the reasons I enjoy

the boatanchors so much is that I don't have to think about IC design and intrinsic reliability

- I can just fix 'em and enjoy 'em. Besides, it's easier to get parts for a 50 year old

boatanchor than a ten year old VCR any day.

BTW, I ran across a technical article (that I can't find now) that talked about the discovery of

a micro-organism that consumes the plastic encapsulant present in most commercial IC's. Of

course it would probably take a bazillion years to cause a failure, but that brings to mind the

old "Andromeda Strain" movie. Keep your solid steel boatanchors, they may really be worth

something someday after the plague :)

73,

Richard, KB5WLH

rbiddle@madvax.mo.ti.com

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996

From: Michael.J.Knudsen@att.com

Subject: Re: Factory mods and upgrades

Message-ID: <9602082131.AA05207@bock.ih.att.com>

Well, I know I can find tubes of any vintage for my antique radios a lot easier and cheaper than finding a 2708 EPROM or 6801 micro for a 15-year-old pinball machine. Makes those electromechanical pins a lot easier to keep running.

I distinctly remember some AT&T/Western Electric transistor that gradually improved in Beta gain over the years. At some point, Western had big trouble with one of their line circuits that they were making zillions of -- the extra gain caused oscillations and whatnot. Nobody had ever put into print the *maximum* beta requirement, since at the time of design it was way out of range

of the transistor. Sorta like you come home after X years of college/army and find you can't beat up your lil' brother anymore -- something grew while you weren't looking.

As for Andromeda Strain, well, we already know our BAs will survive the nuke EMP. And if all else fails in the parts dept, we can in theory *make* new parts. Now we know the real reason why the military insists on ceramic, not plastic, OCs. 73, mike k w9nrd/ae

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: don merz <71333.144@compuserve.com>
Subject: Frank C. Jones
Message-ID: <960209033125_71333.144_DHB62-2@CompuServe.COM>

I must have slept through November because I sure did not notice that Frank C. Jones died on November 5. Jones is still one of my favorite reads. You have to be impressed with the quantity and quality of his writing. But I did not realize that he is supposed to have designed and built the first AC/DC radio. Has anyone seen this documented anywhere?
Don, N3RHT

--

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: wb6zwc@ns.net
Subject: glue for tube bases
Message-ID: <2.2.16.19960208161336.23dfc740@ns.net>

For those that follow this thread..I think one could use just about any old glue to reseal a tube base to its bottle. Recent experience led me to a two part epoxie that worked well. However, I was able to remove the base from the tube, glue it, and then resolder.

For those situations where the base cannot be removed the only alternative is to use a flowing glue; such as super glue. The only negative comment to super glue is that it seems to disappear after about a year; but what the heck a year is a year.

Richard wb6zwc@ns.net
Still looking for Bleeder
Resistors 7.5 K @ 160 Watts

& 575A's

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: Your Name Here <awolf@hpbs2357.boi.hp.com>
Subject: Heathkit manuals
Message-ID: <9602081444.AA02947@hpbs2357.boi.hp.com>

Hi

My name is Andrew Wolf, my wife Sarah and I are working on our ham licenses.

We have a Heathkit HW101 and a Heathkit HA-12 amplifier

I would like to get manuals for the HW101 and its power supply

I would like to get a manual for the HA-12, and I need help on this as we do not have the power supply for the HA-12, know where I can get one, or failing that how to build one

Thanks in advance

Andrew Wolf

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: dlr13@psu.edu (Doug Ripka)
Subject: Homemade 2m BA rx
Message-ID: <199602082154.VAA127614@r05n01.cac.psu.edu>

Hello all,,

I recently acquired a homemade 2m AM/CW/SSB receiver. It is in need of repairs involving the front end. I can inject a signal at the IF frequency (6.1 MHz) and get sound out, but not at RF. This rig was made in Canada, and I am guessing that someone made it from plans, rather than from scratch. However, my perusal of many old ARRL HB's shows only 2m converters, not complete rigs.

Here is the tube lineup, along with my guess for the function:

VT-171 rectifier	6ba6 if amp
6ba6 rf amp	6ba6 if amp
6be6 mixer	6c4 bfo
12ax7 osc/buffer	12au7 audio
0c3 vr for oscillator	6aq5 output
6ba6 1st IF amp	
6u8 ?	

Does anyone know what plans were used to build this radio, if any? Any help would be appreciated.

Thanks,

Doug KA3TTQ (dlr13@psu.edu)

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: Michael.J.Knudsen@att.com
Subject: Re: Homemade 2m BA rx
Message-ID: <9602082221.AA05272@bock.ih.att.com>

Sounds like a pretty fancy homebrew.
The 6U8 could be a 2nd converter (are you sure all those IFs are at 6.1 MC, or might the last two be 455?). Or a product detector? Isn't it a triode-pentode?

On the down side, the 6BA6 and 6BE6 are really pushing it at 144 MHz, especially for noise figure. Pentagrid mixers aren't so great about 30 MC, and some would say above 15 MC. Still, a pretty good try. You might add a 6AL5 or 6T8 for FM as well, once it's working. 73, mike k w9nrd/ae

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: Henry van Cleef <vancleef@bga.com>
Subject: Re: Homemade 2m BA rx
Message-ID: <199602082252.QAA20467@zoom.bga.com>

As Doug Ripka said

>
> Hello all,,
>
> I recently acquired a homemade 2m AM/CW/SSB receiver. It is in need of
> repairs involving the front end. I can inject a signal at the IF frequency
> (6.1 MHz) and get sound out, but not at RF. This rig was made in Canada,
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> Here is the tube lineup, along with my guess for the function:
>
> VT-171 rectifier 6ba6 if amp
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```
> 6be6 mixer                                6c4 bfo
> 12ax7 osc/buffer                          12au7 audio
> 0c3 vr for oscillator                     6aq5 output
> 6ba6 1st IF amp
> 6u8 ?
>
```

The symptoms you are giving are those of a dead local oscillator. I have no idea where the original plans came from, but would strongly suggest you get out your trusty ohmmeter and get a schematic of what you have. Since you've been able to pin down most of the tube functionalities, it should not take more than two passes to get a good schematic. Is the 6U8 being used in detector circuits? You haven't identified anything in this role.

You say this is a 2 meter receiver with a 6100 Khz. IF. You've identified the 12AX7 in the local oscillator role.

Some of these tube choices seem a bit strange to me. Trying to use a 6BE6 at 2 meters, even separately excited, seems to me to be a bit of an exercise. I'd be more inclined to use the 6U8 as oscillator/mixer and the 6BE6 as a product detector. Also what's with all those 6BA6's. I would expect to find them only in AVC-controlled stages, like the 1st IF, and to find something like a 6AK5, 6AU6, or one of the frame grid pentodes in the 1st RF and at least one IF.

— —

Hank van Cleef vancleef@bga.com vancleef@tmn.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: Walt Novinger <waltn@hooked.net>
Subject: Manual for OS-8E/U scope??
Message-ID: <31192F58.4E86@hooked.net>

I sure could use a copy of the user's manual and/or technical (e.g., calibration instructions) manual for the military OS-8E/U portable o'scope. Happy to pay reasonable copying costs, or will buy original if you have a spare.

TIA,
Walt

— —

Walt Novinger Real Radios Keep You Warm At Night!
Collector of hollowstate communications receivers and test equipment
waltn@hooked.net wnovinger@shl.com CI\$: 73348,2015

<http://www.hooked.net/users/waltn>

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: Scott Alfter <salfter@accessnv.com>
Subject: Re: Manual for OS-8E/U scope??
Message-ID: <199602090528.VAA12546@bighorn.accessnv.com>

On Wed, 07 Feb 1996 15:01:44 -0800, Walt Novinger <waltn@hooked.net> wrote:
>I sure could use a copy of the user's manual and/or technical (e.g.,
>calibration instructions) manual for the military OS-8E/U portable
>o'scope. Happy to pay reasonable copying costs, or will buy original if
>you have a spare.

Fair Radio sells partial reproductions. I know it's a partial repro because I bought one for my OS-8C/U. It includes operating instructions, alignment and testing procedures, and some pictures of the various subassemblies. It does not, however, include schematics of most circuits (the only schematic is a simplified schematic of the sweep oscillator). According to the table of contents that was included, chapters 2, 9, and 10 and all appendices were omitted.

After reading a recent post about how to go about getting manuals for military gear from Uncle Sam, I've been tempted to try that route. If you want to give it a try, you need TM 11-6625-252-15 (dated 15 Jul 71). This manual covers the B, C, and E variants of the OS-8.

Scott Alfter

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: drhydro@ames.net (Paul Nelson)
Subject: re: mica capacitor quandary
Message-ID: <v01540a02ad3fe2a2989a@[1.1.1.1]>

I've just had one of those old molded plastic caps shell out in an R-388; the coupling cap between the detector and the AVC amp. Turned into a resistor, and the -55V on the AVC amp end turned into -8V at the detector- it should be about 0.2V- sounded horrible! I'm debating replacing all of those things in this venerable box, but whoo! that's a lot of work....

Paul Nelson
Ames, Iowa

"When I go, I want to go quietly, in my
sleep, like my grandfather- not
screaming, like his passengers."

(DrHydro@ames.net)

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: Henry van Cleef <vancleef@bga.com>
Subject: Re: Mica capacitor quandry...
Message-ID: <199602080617.AAA28357@zoom.bga.com>

As BHall88620@aol.com said

>

> Hello y'all...

>

> Started the process of ordering replacement parts for the Halli SX-24. In my
> quest for replacement parts, I came accross the following problem:

>

> Halli used seven mica capacitors in the design, with the following values:
> 500pF, 2000pF, 100pF, and 50pF. I saved a message a while back from the list
> that suggested replacement of micas with Class 1 NPO ceramic discs.

(questions about micas snipped)

I am guilty of recommending class 1 NPO ceramics for micas. I believe that I recommended these only in the application of blocking cap for the oscillator circuit, usually in series with the oscillator grid lead. My recollection is that the SX24 is, electrically, an S20R with a crystal filter and S-meter added in the set. I have an S20R schematic to refer to, which shows a 6K8 converter design by Hallicrafters which, if not identical to the SX-24, should be a close cousin.

In general, with micas, I do not replace them unless I have signs that they are "bad." The test I make is to put an HP412A VTVM ohmmeter across them on the 100 megohm scale. If I can read ohms, then I replace the cap. This test is a bit tricky, as 100 megohms is extremely high resistance, and it isn't very hard to screw up the test by holding the ohmmeter leads. Also, this is a low voltage test.

The critical caps in oscillator circuits are the blocking cap between the tuned circuit and the oscillator tube, and any fixed series padding caps between the oscillator tuned circuit coil and the variable cap. The S20R uses a tuned plate oscillator, so the critical caps are the cap to the plate (shunt feed used) and the fixed padder on one (highest?) band. There is also a "moose gooser" cap across part of the grid coil, which looks like a Hallicrafters string-and-baling-wire-to-make-it-work job. This type of engineering, by the way, gives the Japanese fits, although it is the American way. There are also moose-gooser caps between the primary and secondary of the two higher band converter RF coils, to increase coupling and gain.

The caps that will cause tuning drift are those in the oscillator circuit. You'll need one that will swallow the turnon surge B+ in the plate circuit, as that will get full voltage on turnon. One gimmick that will allow using an NPO here is to put a .01 mylar in series with the small (105 pf.) cap. The mylar takes the voltage, and is too big to affect the circuit AC.

The micas in the RF circuit can be replaced with class 2 ceramics. The same is true for those used in the detector filter (47 pf in the S20R). The caps in the BFO grid circuit can be low voltage. You can use either ceramics or polystyrene here.

The current Cornell-Dubilier silver micas that Mouser is selling can be used for any original mica. However, I'd go for an NPO in the L0 plate and in the BFO grid for stability. In the S20R, there is a 270 pf tone tailoring cap in the plate circuit of the 6SQ7. This can be a class 2, and can be changed or eliminated to change audio bandpass characteristics.

>

> BTW, I am not too impressed with the Halli workmanship. Too many wires that
> are waaaaaay too long for the points they connect, and lots of wires looped
> around others to take up the slack. Or is that for some sort of crazy
> coupling I don't understand?

>

So, what did you expect, a National Co. radio? Proper wiring is to allow a short amount of slack so that wires can't be stretched fiddle-string tight. Pay attention to the wiring of the 6K8 signal grid (G4 in the heptode). Since the BFO is coupled through a real cap, rather than a two-wires-twisted-together "gimmick" there isn't any reason to route wires for signal pickup. Most of the Hallicrafters sets I've worked with had too-short wiring for my taste. There should be at least enough in every connection so that you can cut and strip the wire 2 or 3 times and still have it connect. That's about the right amount of slack.

On cap voltages, the S20R has a 660VCT power transformer plate winding, and no bleeder from B+ to ground that I can see. The maximum voltage you will see on anything connected to B+ (plates and screens) is 465 volts, occurring from about 3 seconds after power-on till about 10 seconds, when the tubes start drawing current. While the 6K8 plate runs at only 150 volts, it will see the 465 volts during power-up. 450 volt electrolytics are rated "525 surge," but you will want 500 and 600 volt caps anywhere that B+ is bypassed to ground. B+ on the other RF-IF circuits will fall to about 245 volts, so you can use the published tabular operating points for 250 volts plate and 100 volts screen on these tubes to predict voltages and currents when running.

The S20R is a "complete textbook" design, with suitable bypassing (a 10 mfd electrolytic) in the 6K8 heptode circuit and 33 ohm parasitic suppressors in the tuned RF grid stages. If the SX24 doesn't have these, put them in. A 6K8 will wobble around horribly if you don't put low frequency AC bypass on the heptode plate circuit.

When you start rewiring the set, pay close attention to your ground scheme. Metal octals always have pin 1 connected to the shell, and many of the glass equivalents use internal shields also connected to this pin. When you replace the old wax paper firecrackers, return the ground side of the cathode and screen bypasses to pin 1 on the tube socket, and make sure that pin 1 is strapped to the chassis nearby. Most old radios have the bypass grounds returned to anywhere in hell's half acre, and designers spent a lot of time with parasitics in production sets as a result. The mylars are much shorter---return the grounds directly to the logical physical point in the circuits, and you won't have parasitics.

By the way, "rocket science" doesn't do too much for **real** things like steam locomotives, propeller airplanes, and vacuum tube radios. Keep working on this old iron, and we'll make a **real** engineer out of you yet.

--

Hank van Cleef vancleef@bga.com vancleef@tmn.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: Mica capacitor quandry...
Message-ID: <199602081650.IAA28194@desiree.teleport.com>

Ben Hall said:

>Started the process of ordering replacement parts for the Halli SX-24.
>Halli used seven mica capacitors in the design, with the following values:
>500pF, 2000pF, 100pF, and 50pF. I saved a message a while back from the list
>that suggested replacement of micas with Class 1 NPO ceramic discs.
> Unfortunately, the values of 500pF at 500V and 2000pF at 500V were not
>available in Class 1 NPO ceramics from Mouser (I figured 500V was a safe
>rating to shoot for, Halli did not rate the originals and micas from AES seem
>to carry a 500V rating, plus B+ on this set is under 300V). However, I
>noticed that Mouser sold new micas in the appropriate values, namely 500pF
>500V and 2000pF 500V, so I went ahead and ordered them. Now I have second
>thoughts...

>

>My questions: Just how good will these new micas be? Would I better off
>looking around for appropriate value Class 1 NPO ceramics, rather than using
>these new micas? I figured that if they were appropriate for the original
>design, they would be appropriate for my rebuild. None of the ones I have
>tested have been bad, so if the originals survived 55 years, isn't it safe to
>assume that these new micas will last at least this long? Anyone have any
>comments?

Well, I have another question. Is it really a good idea to replace a mica cap that has proved to be reliable for 55 years? When I rebuild a scope, I replace only parts that prove to be bad. The fact that almost EVERY black tubular oil filled cap that I test is bad leads me to replace all of them, but even then, certain high voltage ones are hard to find so unless they specifically test bad, I don't replace them. I don't think I've seen more than two bad mica caps in the 43 years I've been fooling with electronics so I don't consider blanket replacing them. Am I missing something here?

BTW, I have a stock of micas that I never seem to need. If I had any idea what they were worth, I might offer some of them for sale to you guys who actually find a bad one and can't find a replacement. I can test them for capacity and leakage current. What else do I need to know? I have no idea how old they are and some of them are used, but I doubt that it matters if they still work. I would appreciate some comments on this mica cap thing, too.

Stan W7NI@teleport.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996

From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>

Subject: Re: Mica capacitor quandry...

Message-ID: <199602081719.LAA20846@dlep1.itg.ti.com>

At 10:51 AM 2/8/96 -0600, Stan Griffiths wrote:

>... I don't think I've seen more
>than two bad mica caps in the 43 years I've been fooling with electronics so
>I don't consider blanket replacing them. Am I missing something here?

I ran across my first bad mica cap last week in a SuperPro of 50+ years. It was across the AGC line to ground and randomly varied it's resistance with, of course, predictable results on audio level. At least two other BoatAnchorites have found similar problems with mica caps in SuperPro's; one, because of his experience of repeated failures in the same SuperPro, recommended that I replace all SuperPro micas.

I must say that I haven't heeded that advice and don't intend to (yet).

Mica caps in SuperPro's are, however, on my list of things to be monitored closely. My suspicion is that only certain runs or certain manufacturer's capacitors have the problem. Following this logic implies that after experiencing a mica cap failure, one would be well advised to evaluate the rest of the mica caps in that particular piece of equipment.

Regards,
Bill Sorsby, N5BU

bill.sorsby@dlep1.itg.ti.com
Views expressed herein are no one's fault but mine.

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: steve@hi.com (Steve Byan)
Subject: Re: Mica capacitor quandry...
Message-ID: <v02130508ad3fd2307ae3@[140.243.30.128]>

Before we tar all mica caps with the same brush, let's get it straight what kind we're talking about. I've seen two styles:

- 1) axial-lead rectangular molded plastic caps, marked with six color-coded dots
- 2) radial-leaded rectangular epoxy-dipped caps (usually dark maroon color), marked with stamped lettering.

Type 1 is the old style that I remember from tearing apart 40's and 50's vintage TVs and radios in my youth. (Does the 1996 ARRL hadbook still have the capacitor color code for these critters?)

Type 2 is the newer style, which is what you can buy today.

I recall some comment here on boatanchors about the "type 1" mica's having a high failure rate due to the molded plastic shrinking away from the leads after 40 or 50 years and allowing moisture to enter. (What kind of plastic is in these critters? Some kind of thermosetting plastic; as I recall, it's kinda rubbery.)

I don't know anything about the failure modes of "type 2" silver micas, but I suspect its low.

What kind of mica's are in Ben's Halli, and what kind are in Stan's Tek scopes?

Regards,

-Steve

Steve Byan	internet: steve@hi.com
Hitachi Computer Products (America), Inc.	
1601 Trapelo Road	phone: (617) 890-0444
Waltham, MA 02154	FAX: (617) 890-4998

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: pbock@melpar.esys.com (Paul H. Bock)
Subject: Re: Mica capacitor quandry...
Message-ID: <9602081730.AA05132@syseng1.se.melpar.esys.com>

Stan, W7NI, sez:

>I don't think I've seen more
>than two bad mica caps in the 43 years I've been fooling with electronics so
>I don't consider blanket replacing them. Am I missing something here?

I'm with Stan. With one exception, the only micas I've ever seen fail were in high-voltage RF coupling applications and failed because they were inadequately rated in the first place. The single exception was in the late '60s, when a Navy tritium detector failed because a dipped silver mica in a low-voltage part of the circuit became a 5K resistor. To this day, I have no idea what caused it, but it was in a feedback loop and I went nuts trying to figure out what was wrong..... ;-)

73,

Paul, K4MSG

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: wally@mindy.sys.sdl.usu.edu (Wally Gibbons)
Subject: Re: Mica capacitor quandry...
Message-ID: <9602081742.AA00875@mindy.sys.sdl.usu.edu>

At 10:51 AM 2/8/96 -0600, Stan Griffiths wrote:

>... I don't think I've seen more
>than two bad mica caps in the 43 years I've been fooling with electronics so
>I don't consider blanket replacing them. Am I missing something here?

I too have not seen many mica capacitors fail. The most recent (and the first one in a long while) was a plate bypass on a 6SQ7 in a little bc set. I looked for the sizzle in the audio for quite, replaced resistors, until in frustration I just pulled the tube and still heard the noise. It was one of those square ones with the color dots. Only one in the radio. I recommend leaving them alone unless proven guilty.

Wally Gibbons
wally@mindy.sys.sdl.usu.edu

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: dlkerl@elvis.b11.ingr.com (Dan Kerl)
Subject: Re: Mica capacitor quandry...
Message-ID: <199602081835.AA06549@elvis.b11.ingr.com>

The only one I've had fail so far was in a Browning Engineering Labs 12B AM/FM tuner. It was the screen bypass on the AM converter (6SA7). This was a black .01 MFD postage stamp (pretty big for a mica) that was about an inch and a half long, manufactured by MicaMold in Brooklyn. It would make the 2.2K screen load resistor smoke. The case of this cap had a bulge on the back that was topped with a crack (this was the side that couldn't be examined until the device was removed, naturally). I replaced it with a metallized polyester (orange drop), which seems to work fine.

Dan Kerl
dlkerl@ingr.com

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: Michael.J.Knudsen@att.com
Subject: Re: Mica capacitor quandry...
Message-ID: <9602082142.AA05227@bock.ih.att.com>

Well, I remember years ago when I was tracing the lack of AVC voltage in my "new" HQ-129X, and found a near-short "mica" cap in the RF deck. I was truly amazed that a mica cap could do that.

OTOH it may have been one of those notorious paper jobs masquerading inside a micamold housing. I only recently met those, in the BC-348. Great introduction too -- one blew out and took a resistor with it about 30 minutes after I'd powered up the rx.

My guess is that based on capacity per volume, we could probably come up with a pretty good guess whether a given cap is really mica or just micamold paper.

Since micas tend to get chosen for voltage-critical applications,
like power-line rx antennas, it would be really nice to know...
73, mike k w9nrd/ae

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: pmills@cyberhouse.com (Phil Mills)
Subject: mica capacitors again
Message-ID: <199602082054.0AA22269@ns.cyberhouse.com>

Like Stan, I thought these could not go bad. However, in the 75A4 that
I recently wrestled with for several weeks due to a lack of sensitivity....
(BTW my wife says I have the same problem...) though I did not test the cap
after removal but I was testing the receiver after each replacement, the mica
capacitor between the rf coils and the rf amplifier grid was the culprit!

This is certainly in keeping with Murphy's Law....if it is not supposed to
ever break, it will....

thanks,
Phil

Phil Mills, AB5TH
pmills@cyberhouse.com
713-992-5762

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: Henry van Cleef <vancleef@bga.com>
Subject: Mica caps
Message-ID: <199602081929.NAA19824@zoom.bga.com>

I don't think I said anything about "only finding two bad micas in 43
years." I have found a lot more than two, and most of my work as a
bench repair tech was more than 43 years ago.

First of all, people should be aware that the postage stamp molded
plastic package was used for both mica and paper caps. The micas are
usually under 1000 pf; the papers from 1000 to 10,000. The larger
sizes are often listed as "mica" in parts lists.

Caps I've had to replace:
5600 pf. in a low-voltage grid lead, part of a parasitic suppression
setup in a Magnavox radio. Symptom was (you guessed it) parasitics in
the radio. Found by substitution; could not determine a fault in bench

test with anything I've got. This was, by the way, a real pest to find.

Oscillator padder caps in an RME-45 receiver. Symptom was that the set would not track on several bands. Caps showed leakage on HP412A 100 megohm range (one was much lower resistance). Another low voltage application (about 15 volts RF, no DC, on the caps). Various values, from around 600 to 3300 pf. as I recall. Replaced with new CD silver micas (required taking the coil box completely apart to get at them).

Plate coupling caps in a postwar Meissner Signal Shifter. These are DC blocking caps (300 volts) that are supposed to pass RF. Both did not pass the HP412A test. These are 2200 pf. Not tested in operation. I suspect these caps were overstressed in the application. (replaced with 1600 volt Sprague Orange Drops).

Bypass caps in Hallicrafters S-36A. I replaced two or three because they didn't pass the HP412A ohms test. As I recall, all were 8200 pf. B-supply to ground bypass caps (150-250 volts).

On the S-36A, I replaced all the caps and resistors in the local oscillator and mixer stages because there were problems in those stages later traced to coils. Access to some of them required substantial disassembly of the RF deck after removing it from the main chassis, so I did not try to trouble-shoot by doing piecemeal replacement.

I still think of postage-stamp caps as "good until proven bad," but note that in the RME-45 and Signal Shifter, I found enough bad ones that I felt 100% replacement was in order. In the S-36A, I did find a few genuinely bad caps, but followed the rule of "if it's hard to get at, and you've got it apart, replace them."

I don't recall ever finding a bad postage stamp cap in a Tek product, but Stan has a lot more experience with high-time boxes than I do,

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I don't recall ever finding a bad postage stamp cap in a Tek product, but Stan has done a lot more bench repair of high-time Tek stuff than I

have, so I think that his experience would be a better guide.

In any event, one has to consider that these are ancient, and that it is reasonable to expect some variation between suppliers, and between manufacturing lots from the same supplier. The same seems to hold true with molded carbon resistors, where some are just fine after fifty-odd years, and some are way out of spec with no reason besides age-related degradation to explain their having drifted. My feeling is that if you find one bad one in a device, that doesn't condemn the rest of them, but if you find a bunch of them, particularly in low-stress applications like oscillator padders, 100% replacement may be a good idea.

Some capacitor and resistor faults are like tube faults. You can bench-test them with testers for a week and everything looks good, but substitution of a "known good" device solves the problem. Many of the places where postage stamp caps are used can be difficult to trouble-shoot in-circuit because of problems with scope probe loading, etc. Parasitic suppression networks can be particularly difficult because a lot of them were installed as insurance, and failure of a device may or may not produce parasitic problems in a specific box.

--

Hank van Cleef vancleef@bga.com vancleef@tmn.com

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: don merz <71333.144@compuserve.com>
Subject: Millen Preamp Coils?
Message-ID: <960209032708_71333.144_DHB62-1@CompuServe.COM>

I've had the Millen 92101 "Antenna Matching Preamplifier" on my shelf for quite a while but I'd never seen the manual until Don Biska on this list was kind enough to share a copy of his (thanks Don!). The [Only 3 available coils for the preamp--6 meters, 10 meters and 20 meters. Now I already have a coil for TV channel 3 and I have seen other coils for other channels. Does anyone know how many coils were actually sold for this thing?

Thanks.

Don, N3RHT

--

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996

From: "Allan Fritsche" <fritsche@msn.com>
Subject: New Name for Western Electric AKA Network Systems
Message-ID: <UPMAIL03.199602090036330441@msn.com>

In case anyone on the list is curious, the AT&T trivesture has returned the name of NCR to (What else,NCR), The new name for Western Electric, AKA, Network Systems is (Lumcent Technologies Inc). real catchy?. At least I think Bell Labs can still use their old name. Help me on this Mike.

fritsche@msn.com
attmail!fritsche

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: Walt Novinger <waltn@hooked.net>
Subject: OS-8E/U scope manual??
Message-ID: <31193270.48EF@hooked.net>

Fellow BAites...

I sure could use a manual (user's, technical, or both) for this fine little BA o'scope. Happy to pay reasonable copying costs, or buy original(s). Have already tried the usual sources (K7FG, Pete Markavage, etc) to no avail. Help!

TIA,
Walt
--

=====

Walt Novinger	Real Radios Keep You Warm At Night!
Collector of hollowstate communications receivers and test equipment	
waltn@hooked.net	wnovinger@shl.com
	CI\$: 73348,2015
http://www.hooked.net/users/waltn	

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: haynes@cats.ucsc.edu (Jim Haynes)
Subject: Other activity on 176 meters
Message-ID: <199602080611.WAA20818@hobbes.UCSC.EDU>

I listened around for the 1670 station and did hear it, tho not well enough to make out any speech. Then I tuned up to 1700 and heard a male voice giving a short count test, another male voice giving a faster short count, a female voice giving the time and date (incorrect) and the male voice said it is a test of a highway alerting system operating by the City of Anaheim.

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: Michael.J.Knudsen@att.com
Subject: Re: Other activity on 176 meters
Message-ID: <9602081754.AA05092@bock.ih.att.com>

Makes sense. The highway and local alerting systems currently on 1610 and 1620 KC may decide to move up to the new band edge, leaving those freqs for "real" broadcasters.

However, a lot of car radios, including my fancy '87 Accord, won't tune up there, so highway authorities shouldn't flock to the new band. 73, mike k w9nrd/ae

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: berg stephen erik <z931086@corn.cso.niu.edu>
Subject: Re: Other activity on 176 meters
Message-ID: <Pine.3.89.9602081311.A15310-01000000@corn.cso.niu.edu>

I heard the 1670 Kc station last night, and listened to them for several hours. The whole situation reminded me of my days and nights listening to AVFN and AFVN-FM. Alas, I didn't use the HRO, I used the sand filled Ten Tec. I was working on a boatanchor on the workbench and had to use the newer radio. I sent them a letter today for a QSL card, but called them to wish them a short and safe trip to the Balkans. They were S9 to 10 dB over most of the time, with a few deep fades now and then. Thanks to the folks on the list that publicized their tests. They mentioned that they had had calls from as far away as New Zealand. I wonder what sort of antenna they were using? That is decent DX for that low frequency. Maybe 160 Meters would be interesting after all.

73,

Steve WA9JML

z931086@corn.cso.niu.edu

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: "ROBERT W DOWNS, WA5CAB" <103012.2130@compuserve.com>
Subject: RE: R-174/URR BA 470
Message-ID: <960209053253_103012.2130_GHU68-1@CompuServe.COM>

Larry,

R-174/URR is the receiver section from Radio Receiver Set AN/GRR-5. The rest of the set consisted of Power Supply PP-308/URR (6/12/24VDC/115VAC) which is the same size as the receiver, Electrical Equipment Cabinet CY-615/URR (the receiver and power supply plug into this over and under respectively) and various accessories, such as canvas cover, cables, bags, headsets, antennas, spares box, etc. It could also be run from dry batteries carried in canvas bag CW-212/GR.

The power supply has a speaker mounted in it. It's a nice SWL set or auxiliary receiver. I have a complete one (with all accessories) here in my office. \$65.00 seems a trifle high for just the receiver as a typical price for the receiver, power supply and case is probably \$50-125 US.

73, Robert W. Downs, WA5CAB
103012.2130@compuserve.com

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: sinned@VNET.IBM.COM
Subject: RCA 3C33 tube info request
Message-ID: <199602082044.0AA14747@uro.theporch.com>

I have some RCA 3C33 tubes that I would like to use in homebrew HF xmtr project, but I can't find any information on them. Looks like a big dual triode, reminds me of 829 but does NOT have plate leads on top. If anyone has anything I would really appreciate it. THANKS in advance!

Dennis Brady KC5EPZ Irving, TX.
sinned@vnet.ibm.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: w7ni@teleport.com (Stan Griffiths)
Subject: Re: Recording ham QSOs
Message-ID: <199602081140.DAA17375@desiree.teleport.com>

>From: Michael.J.Knudsen@att.com
>Subject: Re: 1670 Test
>
>Previous owners had recorded it off the built-in radio. Great fidelity
>after 44 years. 73, mike k w9nrd/ae
>
>PS: Wonder if any hams recorded their QSOs back in the 50s?

In 1952, my Elmer was W7WQ (later he was K6GJ) and he had a wire recorder at

his operating position. He used to routinely record what he heard and play it back on the next transmission so you could hear what you sounded like at his QTH! I don't remember anyone else who did that. I was 13 years old at the time and studying for my Novice. I became WN7TML in 1953.

Stan W7NI@teleport.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: jschwart@ix.netcom.com (John Schwartzberg)
Subject: South Florida BA Haunts
Message-ID: <199602081412.GAA01595@ix3.ix.netcom.com>

Hey gang!

I'll be in south Florida for a couple of weeks later this month, in the Ft. Lauderdale area. Any suggestions for stops on the BA tour in the south Florida area?

TIA

John
N0GII

jschwart@ix.netcom.com

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: Joe Spencer <jspencer@metronet.com>
Subject: Re: Texas Hamfests Recommendations?
Message-ID: <Pine.HPP.3.90.960208123353.17321A-100000@fohnix.metronet.com>

Hi Ben,
I have an addition for your list:

June 7,8, 9 HAM-COM '96 Arlington, TX

Pretty good BA selections.
73, Joe KK5NA

On Sat, 27 Jan 1996 BHall88620@aol.com wrote:

> Anyone have any information on upcoming hamfests in Texas? I found the
>
> Feb 17, Bastrop County ARC Hamfest in Smithville, TX
> Mar 9, Victoria ARC Hamfest, Victoria, TX

> Jul 13, Tidelands ARC Hamfest in Texas City, TX
-----snip -----

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>
Subject: Re: Texas Hamfests Reccomendations?
Message-ID: <199602081850.MAA12208@dlep1.itg.ti.com>

ARRL lists the following:

Midland, March 16-17, Larry Nix, (915) 699-5441
Weatherford, March 30, Bob Sonnenberg, (817) 594-1017
Wichita Falls, April 6, Jimmy Dodson, (817) 586-0215
Belton, April 20, Mike LeFan, (817) 773-3590

These came from listing at: <http://www.arrl.org/hamfests.html>

Regards,
Bill Sorsby, N5BU

bill.sorsby@dlep1.itg.ti.com
Views expressed herein are no one's fault but mine.

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: Andy Wallace <wallace@mc.com>
Subject: The Missing Link -- Drake T-4 wanted
Message-ID: <9602082035.AA13650@taku>

In the "evolution" from TR-3 to the separates, Drake made a T-4 "reciter" (receiver controlled exciter?) which attached to the R-4. This transmitter is the same shape factor as the R-4 and takes the AC-3 or AC-4 supply of course. The big difference on this piece is there is no VFO! It slaves to the receivers injection output.

I'd like one of these "missing links." Anyone got a T-4 for sale? The last time I saw one in the Ham Trader Yellow Sheets, I was unemployed, darn it.

Would also like to hear from anyone who knows more of the history of these things, or user experiences.

73,
--Andy
wallace@mc.com

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: "basalop" <basalop@eskimo.com>
Subject: The Thorated-Tungsten Filament
Message-ID: <199602090611.WAA28040@mail.eskimo.com>

In the course of experiments made upon tungsten emitters, it was found that filaments made from tungsten having a small amount of thorium (thorium oxide) as an impurity had much greater emission than those made from pure metal. Subsequent development has resulted in the highly efficient carburized thoriated-tungsten filament as used in virtually all transmitting tubes today.

Thoriated -tungsten emitters consist of a tungsten wire containing from 1% to 2% thorium. The activation process varies between different manufacturers of vacuum tubes, but it is essentially as follows: (1) the tube is outgassed; (2) the filament is burned for a short period at about 2800 Kelvin to clean the surface and reduce some of the thorium within the filament to metallic thorium; (3) the filament is burned for a longer period at about 2100 Kelvin to form a layer of thorium on the surface of the tungsten; (4) the temperature is reduced to about 1600 Kelvin and some pure hydrocarbon gas is admitted to form a layer of tungsten carbide on the surface of the tungsten. This layer of tungsten carbide reduces the rate of tungsten evaporation from the surface at the normal operating temperature of the filament and thus increases the operating life of the vacuum tube. Thorium evaporation from the surface is a natural consequence of the operation of the thoriated-tungsten filament. The carburized layer on the tungsten wire plays another role in acting as a reducing agent to produce new thorium from the thorium to replace that lost by evaporation. This new thorium continually diffuses to the surface during the normal operation of the filament. The last process, (5), in the activation of a thoriated tungsten filament consists of re-evacuating the envelope and then burning or ageing the new filament for a considerable period of time at the normal operating temperature of approximately 1900 Kelvin.

One thing to remember about any type of filament, particularly the thoriated type, is that the emitter deteriorates practically as fast when "standing by" (no plate current) as it does with any normal amount of emission load. Also, a thoriated filament may be either temporarily or permanently damaged by a heavy overload which may strip the surface layer of thorium from the filament.

This information was copied from the 1947 Editors and Engineers Radio Handbook.

73 Jim

Packet radio: K7SLI@K7SLI.#NWWA.WA.NA
Internet: basalop@eskimo.com
FAX: 360-659-1360

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: List Admin/Owner BoatAnchor Mail List <listown@jackatak.theporch.com>
Subject: TWO R-390A RECEIVERS FOR SALE
Message-ID: <9602080701.aa08836@jackatak.theporch.com>

Gang-

This was forwarded on to me from a friend who knows a good opportunity for finding that critical piece for holding the concrete in the garage down... ;^)

PLEASE reply ONLY to the original poster, and not to me... I am ONLY the messenger! ;^)

-----8><-----snip here-----

From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: john kracke <jkracke@grci.com>
Subject: TWO R-390A RECEIVERS FOR SALE
Message-ID: <4fatci\$9p4@shark.sb.grci.com>

It is time I moved on to other hobbies... I have two R-390A Receivers that I must sell. One receiver is working. The other is a complete unit minus a couple of tubes. I do not know if the second unit works (I never powered it up). I obtained it mainly for spare parts (haven't had to use any so far). I would like to get 375.00 for both.. (Buy one get one free sort of..) I will deliver within a 25 mile radius of Vienna, Virginia. Anything outside that area and you will have to pick them up yourself or pay for shipping. There are no warranties.. after all, these are old radios.. If you are interested, please drop me an e-mail. Replies posted only to the newsgroup will probably not be seen for awhile. They tend to get lost in my reader..

thanks
John

jkracke@grci.com

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From boatanchors@theporch.com Thu Feb 8 13:31:32 1996
From: "Hal R. Waite" <halwaite@netcom.com>
Subject: Re: Wanted: Central Electronics 200V
Message-ID: <Pine.SUN.3.91.960207233541.10451B-1000000@netcom5>

On Mon, 5 Feb 1996 roecker.greg@ist.vf.mmc.com wrote:

>
> Hi Everyone,
>
> I am looking for a Central Electronics 200V transmitter. Ever since I
> visited the shack of Howard, W3HM, and saw the one he had, I have
> been looking for one.
>
> I promise to give a CE 200V a good home.
> I prefer a working unit. Please indicate condition and price.
>
> Thanks, and 73,
>
> Greg Roecker, N4OSJ
> 770.552.0640 (Atlanta)
> roecker.greg@ist.vf.mmc.com

I have a truly mint 200V but I am only interested in a trade. My first choice is a mint HT-32B + cash but I might consider other gear. This is the finest unit that I have ever seen.

Hal K4GFI/7 Las Vegas halwaite@netcom.com

From boatanchors@theporch.com Fri Feb 9 00:43:09 1996
From: "David L. Thompson" <thompson@mindspring.com>
Subject: WTB: Good copy of W6TNS SSB Handbook
Message-ID: <199602090436.XAA00012@borg.mindspring.com>

WTB: a good copy of "Sideband Handbook" by Don Stoner, W6TNS published by Cowan Publishing from about 1958 to 1963. Respond by E-mail to thompson@mindspring.com.

73, Dave K4JRB